(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 11 August 2005 (11.08.2005)

PCT

(10) International Publication Number $WO\ 2005/072780\ A2$

- (51) International Patent Classification⁷: A61K 49/10, 49/18, 51/04
- (21) International Application Number:

PCT/US2005/000800

- (22) International Filing Date: 11 January 2005 (11.01.2005)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

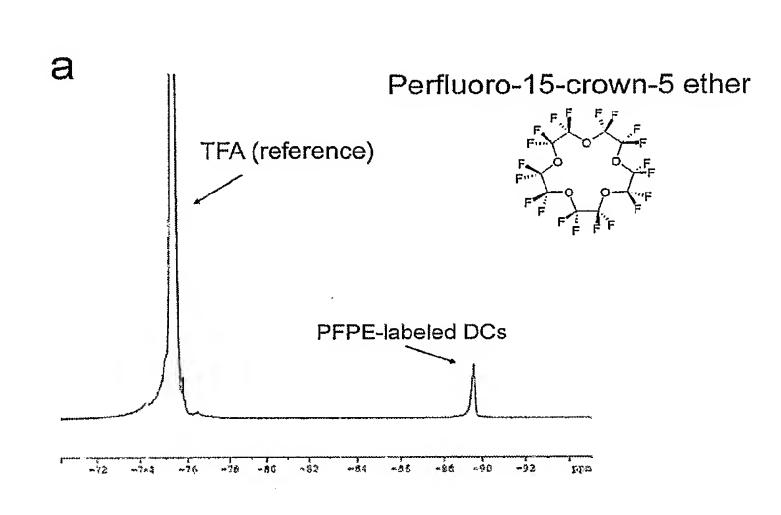
60/537,303 16 January 2004 (16.01.2004) US 60/621,961 25 October 2004 (25.10.2004) US

(71) Applicant (for all designated States except US): CARNEGIE MELLON UNIVERSITY [US/US]; 4400 Fifth Avenue, Pittsburgh, PA 15213 (US).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): AHRENS, Eric, T. [US/US]; 327 Dewey Street, Pittsburgh, PA 15218 (US).
- (74) Agents: VARMA, Anita et al.; Ropes & Gray LLP, One International Place, Boston, MA 02110-2624 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

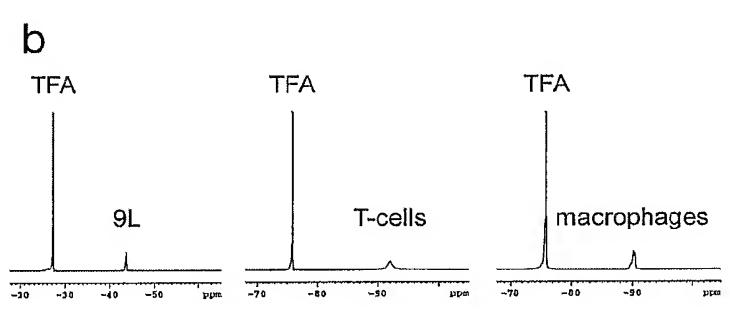
[Continued on next page]

(54) Title: CELLULAR LABELING FOR NUCLEAR MAGNETIC RESONANCE TECHNIQUES



(57) Abstract: The disclosure provides, in part, fluorocarbon imaging reagents and formulations for the ex vivo labeling of cells. Labeled cells may be detected in vivo or ex vivo by a nuclear magnetic resonance technique, such as magnetic resonance imaging (MRI) or magnetic resonance spectroscopy (MRS). The disclosure additionally provides methods for using the imaging reagents in a variety of clinical procedures.





WO 2005/072780 A2



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.